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2014

Master of Science in Biomedical Informatics Brochure

Nova Southeastern University

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COLLEGE OF OSTEOPATHIC MEDICINE

Master of Science in Biomedical Informatics

HEALTH PROFESSIONS DIVISION • Entering Class 2014






M.S. IN BIOMEDICAL INFORMATICS

GETTING YOUR GRADUATE DEGREE IS AS CLOSE AS YOUR DESK TOP

Nova Southeastern University (NSU) College of Osteopathic Medicine, in collaboration with the NSU Graduate School of Computer and Information Sciences, offers a program leading to the degree of Master of Science in Biomedical Informatics (M.S.B.I.). The program trains future leaders in the development, dissemination, and evaluation of information technology as it relates to the health care environment, which includes hospitals, health care delivery systems, health information technology system vendors, ehealth companies, insurers, pharmaceutical companies, and academic institutions. This innovative distance program uses both **online and on-site formats** to enable working professionals to earn a master's degree in biomedical informatics without career disruption. The program is offered via Nova Southeastern University's state-of-the-art, Web-based, distance-learning technology.

The current health care system is facing uncontrolled health care costs, compromised patient safety, and a lack of utilization of information technology applications that have the potential to improve the situation. The integrative discipline of biomedical informatics arises from the synergistic application of computational, informational, cognitive, organizational, and other sciences whose primary focus is the acquisition, storage, and use of information in the health/biomedical domain.



People who have a degree in biomedical informatics have a great variety of career opportunities. The type of informatics job that an individual can perform is, to some extent, dependent on his or her background. People with health care backgrounds (e.g., medicine or nursing) are more likely to use their informatics expertise in roles such as a chief medical officer or a nursing information officer. People who do not have health care backgrounds are more likely to work in the variety of other jobs that are widely available.

People with biomedical informatics backgrounds may become

- chief information officers
- programmers
- local project managers
- systems analysts
- project designers
- educators
- researchers
- consultants
- implementation specialists
- nurse informaticians

They can work in hospitals, health systems, eHealth companies, pharmaceutical and insurance companies, or academic institutions.

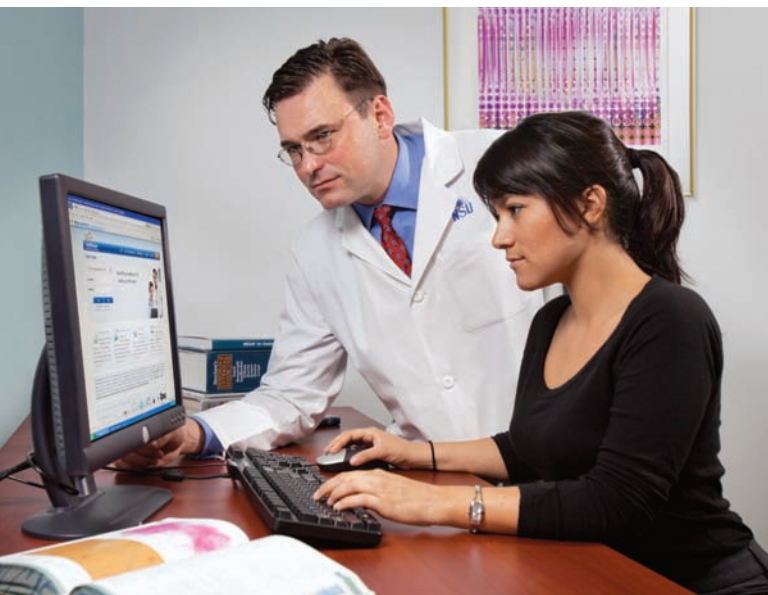
Please visit our Web site at ***www.medicine.nova.edu/msbi***.

CURRICULUM

Students are required to complete 43 credit hours for the M.S.B.I. degree.

REQUIRED COURSES—31 CREDIT HOURS REQUIRED

COURSE #	COURSE TITLE	CREDIT HOURS
MI 5120	Management Information Systems in Health Care	3
MI 5121	Information Systems Project Management in Health Care	3
MI 5130	Database Systems in Health Care	3
MI 5152	Information Security in Health Care	3
MI 5160	System Analysis and Design for Health Care	3
MI 5200	Survey of Medical Informatics	3
MI 5204	Clinical Decision Support Systems	3
MI 5205	Program Evaluation in Health Information Technology	3
MI 5401	Managing Organizational Behavior for Medical Informatics	3
MI 7000	Biomedical Informatics Project/Practicum	4
Subtotal		31



ELECTIVES—12 CREDIT HOURS REQUIRED

Students may take any of the following electives toward degree completion:

COURSE #	COURSE TITLE	CREDIT HOURS
MI 5153	Telecommunications and Computer Networking in Health Care	3
MI 5180	Human-Computer Interaction in Health Care Settings	3
MI 5203	Medical Informatics Applications to Health Services	3
MI 6400	Outcome Research	3
MI 6401	Biostatistics	3
MI 6403	Epidemiology	3
MI 6404	Special Topics in Health Informatics	3
MI 6405	Public Health Informatics	3
MI 6407	Grant Writing	3
MI 6408	Health Policy, Planning, and Management	3
MI 6409	Health Services Planning and Evaluation	3
MI 6410	Consumer Health Informatics	3
MI 6411	Health Information Technology Acquisition and Assessment	3
MI 6412	Leadership in Health Information Technology	3
MI 6414	Basic Skills for Clinical Analysts	3
MI 6415	Information Technologies in Medicine and Telehealth	3
MI 6416	Lean Six Sigma for Health Care	3
MI 6417	Meaningful Use of Electronic Health Record Systems—A NextGen Approach	3
MI 6418	App Development for Health Information Technology Projects	3
Total		43



ADMISSIONS REQUIREMENTS

The Biomedical Informatics Program evaluates the overall quality of its applicants, including academic achievement, personal motivation, knowledge about health care, life experience, and recommendations. Priority will be given to individuals holding a degree in the health professions or computer information sciences. Criteria for admissions are as follows:

- bachelor's, master's, or doctoral degree from a regionally accredited college or university
- cumulative grade point average of 3.0 or above on a 4.0 scale (preferred)
- health professions degree (desirable, but not required)
- demonstrated background in biomedical sciences by credentials or work experience
- demonstrated competency in the use of computers by credentials or work experience.
- demonstrated ability to clearly express oneself in writing

Applicants without prior health care or computer science degrees/experience are encouraged to email the program's admissions counselor at msbi@nova.edu or call 800-356-0026, ext. 21032, for more information on additional required courses.



APPLICATION PROCEDURES



The Office of Admissions processes applications on a year-round basis. Applicants may apply for matriculation into any one of the three semesters (fall, winter, summer). All of the following must be completed and submitted for your application to be considered by the admissions committee.

- online application at www.medicine.nova.edu/msbi/admissions/index.html (Payment of a nonrefundable application fee of \$50 is required to complete your application.)
- one letter of recommendation from supervisors or co-workers who are familiar with your character, scholastic aptitude, and work ethic
- official transcripts of all undergraduate, graduate, and professional education

INTERNATIONAL STUDENTS

Official course-by-course evaluation of all foreign transcripts must be submitted. Agencies that can complete this evaluation can be found at www.nova.edu/internationalstudents/prospective/credentialservices.html.

Applicants whose native language is not English are required to demonstrate English proficiency. The standardized tests listed below currently satisfy the university's English requirement for nonnative English speakers.

- Test of English as a Foreign Language (TOEFL):
score of 213 on the computer-based test or
79–80 on the Internet-based test
- International English Language Testing System (IELTS):
score of 6.0 on the test module
- GMAT: score of 450
- GRE: score of 1,000 (old format) or 306 (new format)
- Scholastic Assessment Test (SAT):
score of at least 500 in the reading section
- American College Test (ACT):
score of at least 20 on the verbal section



APPLICATION PROCEDURES (CONT.)

Test results must be sent directly from the testing agency to the center where you applied. Proof of English language competency can also be in the form of successful completion of a degree at an approved U.S. institution of higher education.

The program may require additional documentation to support the application. All application material must be received in a timely manner to enable the Office of Admissions and the Admissions Committee to process the application promptly. Upon review, you will be contacted by the program director.

Should you have any questions, please email msbi@nova.edu or call 800-356-0026, ext. 21032. Please visit our Web site at www.medicine.nova.edu/msbi for detailed application procedures.

CERTIFICATES AND OTHER DEGREE OPTIONS

The Biomedical Informatics Program also offers

- a graduate certificate in medical informatics
(www.medicine.nova.edu/msbi/medicalinformatics.html)
- a graduate certificate in public health informatics
(www.medicine.nova.edu/msbi/publichealth.html)
- an M.S.N. degree with a track in nursing informatics
(www.nova.edu/nursing/msn/tracks.html)



The Biomedical Informatics Program at NSU is a partner of the American Medical Informatics Association's 10x10 program. Visit <http://www.amia.org/education/10x10-courses> for more information.

NONDEGREE-SEEKING STUDENTS

A nondegree-seeking student is one who wishes to take courses in the Biomedical Informatics Program, but does not intend to pursue the master's degree at the time of application. The nondegree-seeking student must provide the following admissions requirements in order to take classes in the program:

- completed online application form
- nonrefundable application fee of \$50
- official transcripts of all undergraduate, graduate, and professional education

Nondegree-seeking students are not guaranteed future acceptance into the Master of Science in Biomedical Informatics degree. If, after taking classes in the program as a nondegree-seeking student, the student wishes to become a degree-seeking student, he or she must apply to the master's degree program as a new student and meet all the requirements for admission. If accepted into the degree program, credits for courses with the prefix MI taken as a nondegree-seeking student will be automatically applied toward the degree.

Email msbi@nova.edu or call 800-356-0026, ext. 21032, for more information.



The Biomedical Informatics Program at NSU is a member of the American Medical Informatics Association's Academic Forum. Visit www.amia.org/programs/academic-forum for more information.



ELECTRONIC CAMPUS



The Biomedical Informatics Program is a participant of the Electronic Campus program of the Southern Regional Education Board (SREB). The SREB certifies that the online programs and courses it approves for this program are in full compliance with its comprehensive set of Principles of Good Practice.

Nova Southeastern University admits students of any race, color, sexual orientation, and national or ethnic origin. ■ Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

01-025-13MCP

TUITION AND FEES



Tuition for 2013–2014 is \$650 per credit hour. Tuition for 2014–2015 will subsequently be posted on our Web site (www.medicine.nova.edu/msbi). A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$945 is also required annually for degree- and nondegree-seeking students. All tuition and fees are subject to change by the board of trustees without notice.

This brochure is for information purposes only and does not represent a contract. Information contained herein is subject to change at any time by administrative decision on the direction of the board of trustees. Updated information can be found on our Web site (www.medicine.nova.edu/msbi).



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